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EXAMINER
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RICHER, AARON M

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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* WAYNE D. YOUNG

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Appeal 2009-009078  
Application 10/796,695  
Technology Center 2600

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Before ALLEN R. MACDONALD, ELENI MANTIS MERCADER and  
CARL W. WHITEHEAD, JR., *Administrative Patent Judges*.

WHITEHEAD, JR., *Administrative Patent Judge*.

DECISION ON APPEAL

## STATEMENT OF THE CASE

### *Introduction*

Appellant appeals under 35 U.S.C. § 134 from a final rejection of claims 1-3 and 6-20. Appeal Brief 3. We have jurisdiction under 35 U.S.C. § 6(b) (2002). We affirm-in-part.

### *Exemplary Claim*

Exemplary independent claim 1 under appeal reads as follows:

1. A method of dithering an image, the method comprising the acts of:

receiving a target color at a high color resolution for a current one of a plurality of pixels of the image, the target color being intermediate between a first color and a second color at a low color resolution;

tracking an accumulated error across the plurality of pixels up to and including the current pixel;

selecting one of the first color and the second color as a final pixel color, wherein the first color is selected in the event that the accumulated error is less than a threshold, wherein the second color is selected in the event that the accumulated error exceeds the threshold, and wherein the accumulated error is reduced below the threshold in the event that the second color is selected;

providing an updated accumulated error to a next one of the plurality of pixels; and

outputting the selected final pixel color for display on a display device.

*Rejections on Appeal*

Claims 1-3, 10-15, 17, 18, and 20 stand rejected under 35 U.S.C. §102(e) as being anticipated by Quintana (U.S. Patent Application Publication 2004/0100646 A1; May 27, 2004). Answer 3-9.

Claims 6 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Quintana and Keithley (U.S. Patent 6,028,677; February 22, 2000). Answer 9-10.

Claims 8 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Quintana, Keithley and Li (U.S. Patent 6,563,975 B2; May 13, 2003). Answer 10-11.

Claims 16 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Quintana. Answer 11.

*Issue on Appeal*

Does Quintana teach a dithering method wherein the final pixel color is selected between a first and second color for a final pixel color?

ANALYSIS

The invention is a method and device for dithering an image. Appeal Brief 3-4.

Appellant argues the independent claims generally provide for selecting between a first color and second color for a final pixel color, however Quintana, discloses a method involving the determination of whether to output an output pixel or not. Appeal Brief 6 (*citing* Quintana [0014, 0015, 0018, 0026 and 0032]).

The Examiner finds that Quintana is related to printing and therefore selects between printing a color of ink on a page, or simply leaving the page as-is. Answer 12. However, Appellant contends that a "determination to not output an output pixel causes the output determination process to continue for a next darkest color component" and the decision to not output a pixel in Quintana causes no output pixel to be output for that color, and therefore triggers other color determinations for the pixel to be undertaken. Appeal Brief 6 (*citing* Quintana [0018]). We find the Appellant's argument to be persuasive.

Quintana does not select the final pixel color from a first and second color as claim 1 required. The Quintana reference cycles through a progression of colors until desired pixel color is determined. *See* Quintana, Figure 1.

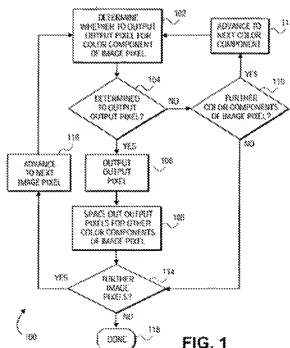


FIG. 1

Figure 1 discloses a method (100) in whether an output pixel for a color component of an image pixel should be output (102).

It is clear from Quintana's disclosed method that the exclusivity of the pixel color selection recited in claim 1 is not taught by Quintana. Therefore we will not sustain the Examiner's rejection of claim 1, nor will we sustain the Examiner's rejection of the corresponding dependent claims.

Appellant does not argue independent claims 12 and 20 separately from claim 1. *See* Appeal Brief 5-9; Reply Brief 2-5. Claim 12 recites "an adjustment module configured to modify the low resolution color signal from a first color to a second color for the current pixel" and claim 20 recites "an adjustment module configured to modify the low resolution color signal from a first color to a second color for the current pixel." The arguments Appellant set forth in regards to the "final pixel color" and "selecting between a first color and second color for a *final pixel color*" is not commensurate with the scope of claims 12 and 20 because neither claim requires the exclusivity of claim 1. *See* Appeal Brief 5-9. Therefore without arguments germane to the scopes of claims 12 and 20, we will sustain the Examiner's rejection of claims 12 and 20, as well as the corresponding dependent claims.

## DECISION

The Examiner erred in rejecting claims 1-3 and 6-11 under the various 35 U.S.C. § 102 and 35 U.S.C. § 103 rejections.

The Examiner did not err in rejecting claims 12-20 under the various 35 U.S.C. § 102 and 35 U.S.C. § 103 rejections.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a) (1) (iv).

AFFIRMED-IN-PART